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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/579,733	12/28/95	NOBUTA	H 862.1351

26M2/0519
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EXAMINER	
WALLERSON,M	
ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 05/19/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/579,733	Hiroshi Nobuta et al
Examiner	**Group Art Unit**
Mark Wallerson	2616

☐ Responsive to communication(s) filed on _____ .

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-56 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-56 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Part III DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-56 are pending.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because of the reasons stated above.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

4. Claims 15, 22, 25, 28, 36 and 44 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant claims that his invention is based on the IEEE P1284 standards, however, as rules change over time, it is inappropriate to have the scope of the claims change with time. If the standards change, the disclosure may no longer support the limitation.

5. Claims 15, 22, 25, 28, 36, and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 4, 9, 17, 18, 20, 21, 27, 30, 38, and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawamata et. al. (Kawamata) (U. S. 4,989,163).

With regard to claims 1, 17, 30, 38, and 46, Kawamata discloses a photo printer system comprising an image scanner (figure 4, part 4); a bus for receiving an image signal from the scanner (figure 4); a CPU (control unit) for accessing the bus (figure 4, part 18), and first and second bidirectional interfaces for the transmission and reception of the image signal between the bus and the host computer and printer respectively (figure 4, parts 17 and 20).

With regard to claims 2 and 18, Kawamata discloses a printer is arranged outside of the device (figure 4).

With respect to claims 4 and 20, Kawamata discloses that the computer performs predetermined processing of the image signal received through the bidirectional interface (the abstract, lines 14-18).

With regard to claim 9, Kawamata discloses that the image signal can be processed by the host computer and supplied to the printer through interfaces (parts 17 and 20 and column 3, lines 18-35).

With respect to claim 21, Kawamata discloses that the image signal can be transferred from the bus to the printer without using the computer (column 3, lines 48-58).

With respect to claim 27, Kawamata discloses inputting and processing an image signal by using a developing circuit (internal circuit) (column 4, lines 64-69 and column 5, lines 19-34); reception of the image signal by the host computer; outputting the image signal in a first mode to

the printer using the developing circuit and without use of the computer, and outputting the image signal in a second mode using the computer (column 5, lines 31-68 to column 6, lines 1-15 and column 7, lines 30-47).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 13, 14, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Otani et. al. (Otani) (U. S. 4,727,435).

With regard to claim 24, Kawamata discloses a photo printer system comprising an image scanner; a bus for receiving an image signal from the scanner; a CPU (control unit) for accessing the bus, and first and second bidirectional interfaces for the transmission and reception of the image signal between the bus and the host computer and printer respectively. Kawamata differs from claim 24 in that he does not clearly disclose a plurality of modes to process and output the image signal. Otani discloses a plurality of modes to process and output the image signal (column 1, lines 66-68 to column 2, lines 1-10). It would have been obvious to one of ordinary skill in the

art at the time of the invention to utilize the image processing modes as taught by Otani in the apparatus of Kawamata in order to improve image processing.

With regard to claim 13, Kawamata is silent on photoelectric conversion means. Otani discloses a scanner comprising a photoelectric conversion unit for converting an optical signal to an electrical signal and processing the resultant image. It would have been obvious to utilize the photo electrical means as taught by Otani in the apparatus of Kawamata in order to read the optical signals.

With respect to claim 14, Kawamata discloses that the image signal can be transferred from the bus to the printer without using the computer (column 3, lines 48-58).

10. Claims 16, 23, 26, 29, 37, 45, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Kochis et. al. (Kochis) (U. S. 5,218,458).

With regard to claims 16, 23, 26, 29, 37, 45, and 50, Kawamata discloses a photo printer system comprising an image scanner; a bus for receiving an image signal from the scanner; a CPU (control unit) for accessing the bus, and first and second bidirectional interfaces for the transmission and reception of the image signal between the bus and the host computer and printer respectively. Kawamata differs from claims 16, 23, 37, 45, and 50 in that he does not disclose a modem or transmitting the image from the bidirectional interface to a telephone line. Kochis discloses a telephone line connected to a PC Fax card for the transmission of the image signal. It

would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the fax as a modem to easily transmit the image data.

11. Claims 3, 5, 6, 19, 31, 32, 33, 34, 35, 39, 40, 41, 47, 48, 51, 52, 53, 54, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Takaoka et. al. (Takaoka) (U. S. 5,438,648).

With regards to claims 5, 32, 34, 39, 40, 48, 52, 53, Kawamata discloses a photo printer system comprising an image scanner; a bus for receiving an image signal from the scanner; a CPU (control unit) for accessing the bus, and first and second bidirectional interfaces for the transmission and reception of the image signal between the bus and the host computer and printer respectively. Kawamata differs from claims 5, 32, 34, 39, 40, 48, 52, and 53 in that he does not disclose color balancing and conversion means for converting a color image signal from a signal processed by a computer to a color image signal unique to a printer. Takaoka discloses color balancing and conversion means for converting a color image signal from a signal processed by a computer to a color image signal unique to a printer (column 2, lines 65-68 to column 3, lines 1-32). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the image balancing and conversion means as taught by Takaoka in the device of Kawamata in order to improve color image processing of the graphic signals.

With regards to claims 33, 41, 49, and 54, Kawamata differs from claims 33, 41, 49, and 54 in that he does not disclose that the image processing includes masking processing. Takaoka

discloses that the image processing includes masking processing (column 3, lines 31-58). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the color masking means as taught by Takaoka in the device of Kawamata in order to easily correct the converted color signals.

With regards to claims 31 and 47, Takaoka discloses that the image processing includes conversion processing from a color image signal unique to the scanner to a color image signal processed by an external unit (the computer) and the printer (column 4, lines 61-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the synchronization means as taught by Takaoka in the device of Kawamata in order to process the color image.

With regard to claims 6 and 35, Kawamata differs from claims 6 and 35 in that he does not disclose that the color signal from the scanner includes R, G, and B signals, and color balancing is performed by adjusting the intensities of the R, G, and B signals. Takaoka discloses that the color signal from the scanner includes R, G, and B signals, and color balancing is performed by adjusting the intensities of the R, G, and B signals (column 3, lines 6-35 and column 4, lines 22-26). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the density adjusting means as taught by Takaoka in the device of Kawamata in order to improve the output image.

With regards to claims 3 and 19 Kawamata discloses a printer external to the scanner. Takaoka discloses a printer connected integrally with a scanner (column 6, lines 51-56 and

column 7, lines 34-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an integrated scanner/printer system as taught by Takaoka in the device of Kawamata in order simplify the apparatus.

With regard to claim 51, Kawamata discloses transferring an image to a bus from a host computer, performing transmission/reception processing of a signal between the computer and the bus (figures 1 and 4), and performing predetermined processing of the image signal by the computer (the abstract, lines 14-18). Kawamata differs from claim 51 in that he discloses a printer external to the scanner. Takaoka discloses a printer connected integrally with a scanner (column 6, lines 51-56 and column 7, lines 34-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an integrated scanner/printer system as taught by Takaoka in the device of Kawamata in order simplify the apparatus.

12. Claims 7, 8, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Murai (U. S. 4,962,421).

With regard to claims 7 and 42, Kawamata discloses a photo printer system comprising an image scanner; a bus for receiving an image signal from the scanner; a CPU (control unit) for accessing the bus, and first and second bidirectional interfaces for the transmission and reception of the image signal between the bus and the host computer and printer respectively. Kawamata differs from claims 7 and 42 in that he does not disclose that the image processing means includes the process of controlling the resolution of the image read from the scanner. Murai discloses

image processing means which include the process of controlling the resolution of the image read from the scanner (column 7, lines 1-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the resolution control means as taught by Murai in the device of Kawamata in order to improve the output image.

With regard to claims 8 and 43, Kawamata does not disclose image processing means for controlling the magnification of the scanned image. Murai discloses image processing means for controlling the magnification of the scanned image (column 6, lines 56-68). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the resolution control means as taught by Murai in the device of Kawamata in order to improve the output image.

13. Claims 10, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Oura (U. S. 4,470,113).

With regard to claims 10, 11, and 12, Kawamata discloses a photo printer system comprising an image scanner; a bus for receiving an image signal from the scanner; a CPU (control unit) for accessing the bus, and first and second bidirectional interfaces for the transmission and reception of the image signal between the bus and the host computer and printer respectively. Kawamata differs from claims 10, 11, and 12 in that he does not disclose memory means for recording set values used for image processing by the host computer, wherein the set values include values determined in accordance with the scanner and the printer. Oura discloses

memory means for recording set values used for image processing by the host computer, wherein the set values include values determined in accordance with the scanner and the printer (column 7, lines 25-43). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the value setting means as taught by Oura in the device of Kawamata in order to improve the image processing.

14. Claims 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamata in view of Takaoka as applied to claim 51 above, and further in view of Oura.

With regard to claim 55, Kawamata discloses transferring an image to a bus from a host computer, performing transmission/reception processing of a signal between the computer and the bus, and performing predetermined processing of the image signal by the computer. Takaoka discloses a printer connected integrally with a scanner. Kawamata and Takaoka differ from claim 55 in that they do not disclose that the image processing means includes the process of controlling the resolution of the image read from the scanner. Murai discloses image processing means which include the process of controlling the resolution of the image read from the scanner (column 1, lines 16-30 and column 7, lines 1-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the resolution control means as taught by Murai in the device of Kawamata in view of Takaoka in order to improve the output image.

With regard to claim 56, Kawamata and Takaoka differ from claim 56 in that they do not disclose image processing means for controlling the magnification of the printed image. Murai

discloses image processing means for controlling the magnification of the printed image (column 1, lines 16-30 and column 6, lines 56-68). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the resolution control means as taught by Murai in the device of Kawamata in order to improve the output image.

Conclusion

15. Any inquiry concerning this application should be directed to Mark Wallerson whose telephone number with voice mail is (703) 305-8581. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles, can be reached at (703) 305-4712. The fax number for this group is (703) 308-5397.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 305-3900.

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